

550,055

PCT/PTC 21 SEP 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number  
**WO 2004/085238 A1**

(51) International Patent Classification<sup>7</sup>: **B63B 27/24**,  
E21B 19/00

[GB/NL]; Visseringlaan 19, NL-2280 AB Rijswijk (NL).  
**EFTHYMIU, Michalakos** [CY/NL]; Volmerlaan 8,  
NL-2288 GD Rijswijk (NL).

(21) International Application Number:  
PCT/EP2004/050345

(22) International Filing Date: 22 March 2004 (22.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03251849.0 25 March 2003 (25.03.2003) EP

(71) Applicant (for all designated States except US): **SHELL  
INTERNATIONALE RESEARCH MAATSCHAPPIJ  
B.V.** [NL/NL]; Carel van Bylandtlaan 30, NL-2596 HR  
The Hague (NL).

(72) Inventors; and

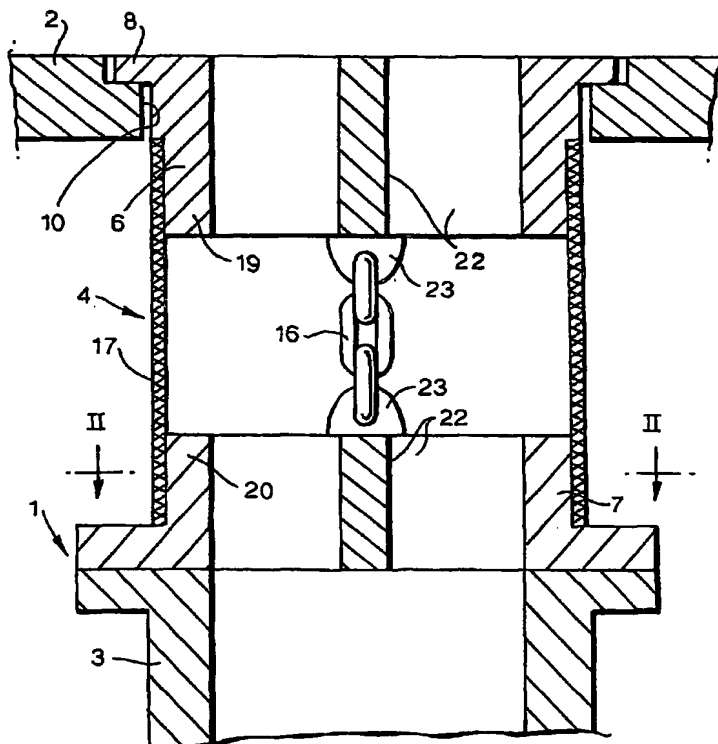
(75) Inventors/Applicants (for US only): **COX, Ali Joseph**

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-  
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,

[Continued on next page]

(54) Title: WATER INTAKE RISER



(57) Abstract: A water intake riser (1) that can be suspended from a vessel comprising a riser (3) connected to a riser hanger (4), which riser hanger (4) comprises a first tubular element (6), a second tubular element (7) to which the riser (3) is connected, a flexible load transfer element (16) joining the tubular elements (6, 7), and a hose (17) of which the ends are secured to the adjacent ends (20, 22) of the tubular elements (6, 7).

WO 2004/085238 A1



GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments*

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*